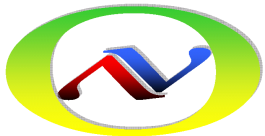




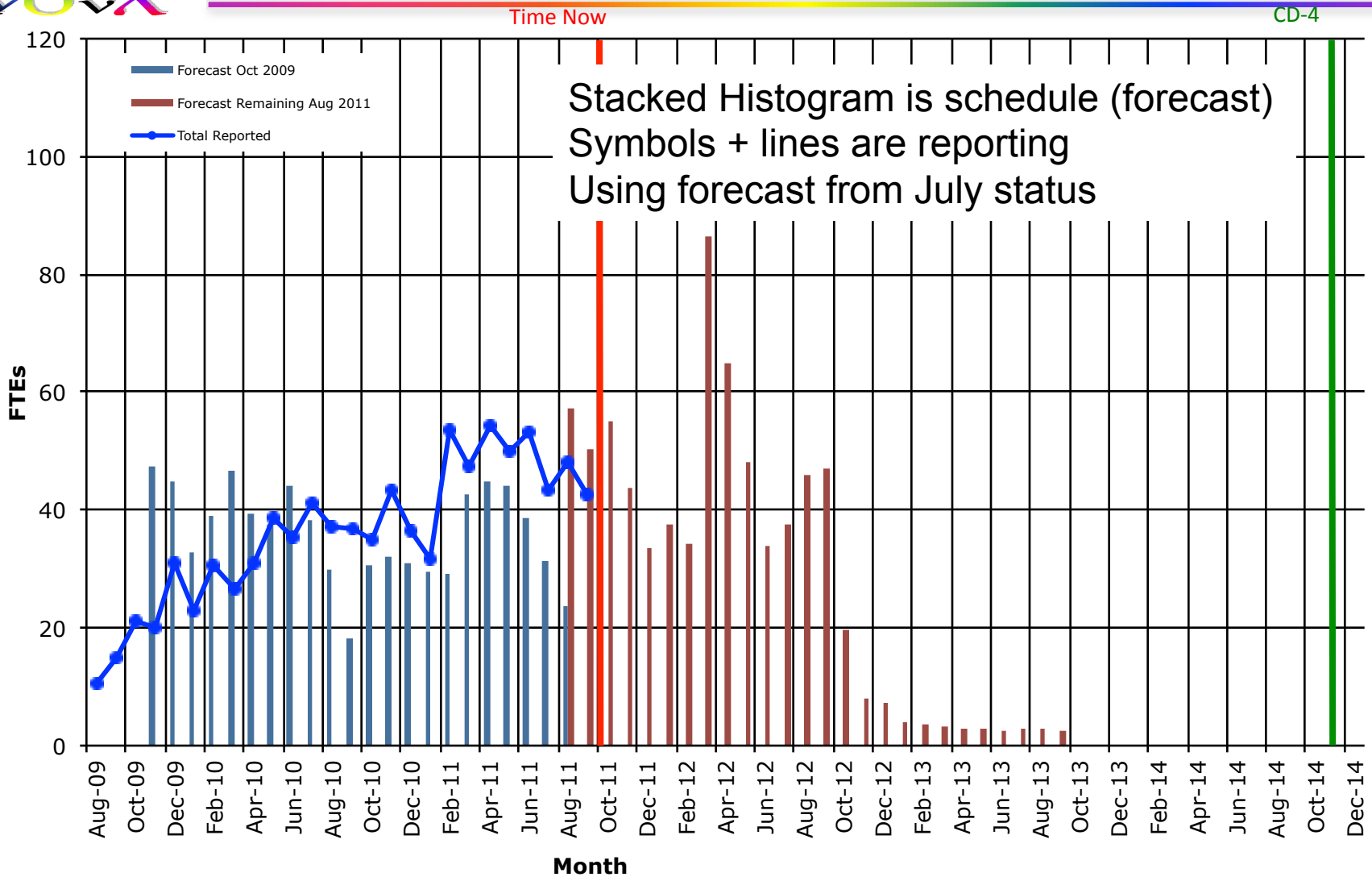
Accelerator & NuMI Upgrades Update

Paul Derwent

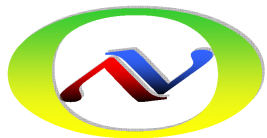
27 Sep 2011



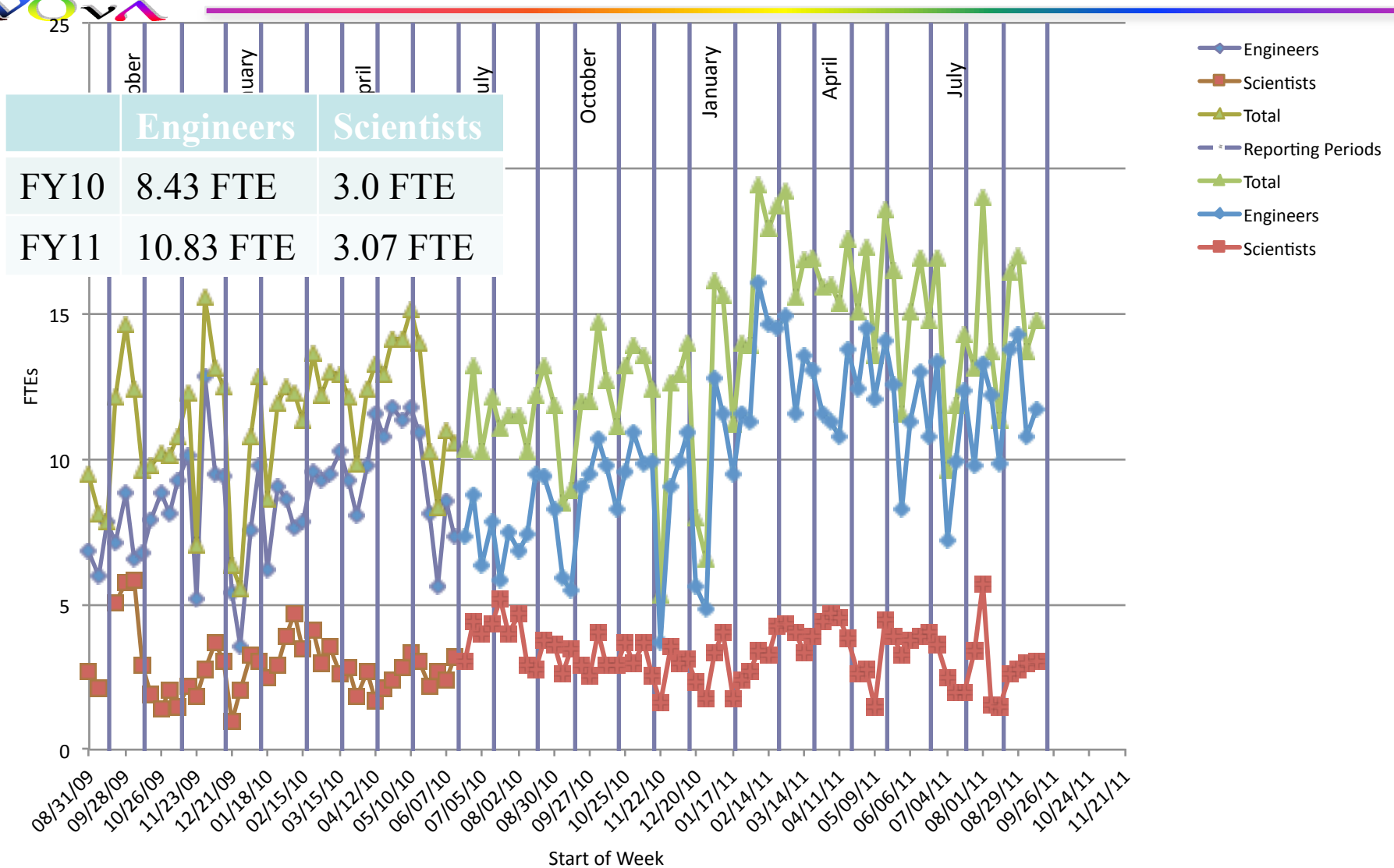
ANU Resource Requirements



FTE := 147.3 hours/month



Engineers & Scientists FTE by week

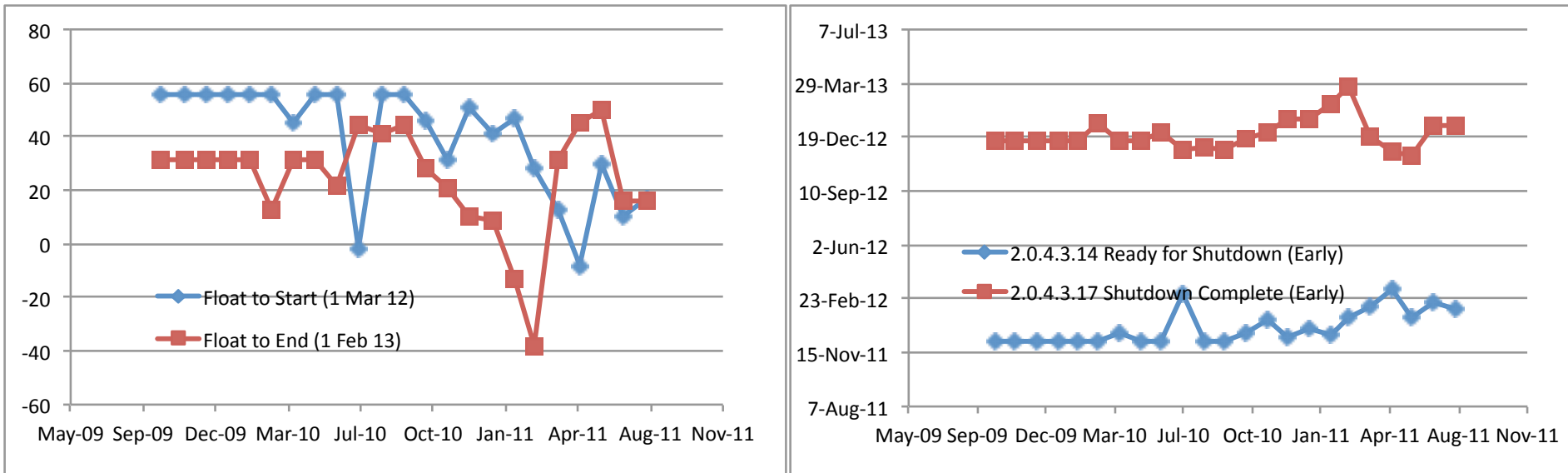


FTE := 34 hours/week



Shutdown Planning

On schedule for Mar 2012 start and Nov 2012 end



- Shutdown Mar 2012 – Feb 2013
 - Start: Ready 6 Feb 2012 (driven by RAW water system design)
 - Design Review in Mid-October, procurement and fabrication to follow
 - RF cavities in testing by January
 - End: 8 Jan 13 (driven by full turn magnet fabrication, assuming we use CoorsTek long beam tubes)



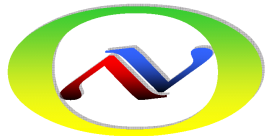
Shutdown planning

- ANU work: ~9 months
 - Additional work adding to length:
 - MI RF upgrades and maintenance
 - Vacuum and water: 6 of 18 RF cavities
 - MI and RR IPMs: in injection area, readiness?
 - Constrained by crew availability
 - Total work: 10 months
- TeV recovery: when stable
 - Working on schedule and resources
- Recycler disabled:
 - Get started in service buildings with:
 - BPM hardware
 - Trim PS upgrades and rearrangements
 - Kicker work in MI 30
 - Propose to start in early January



Shutdown Planning

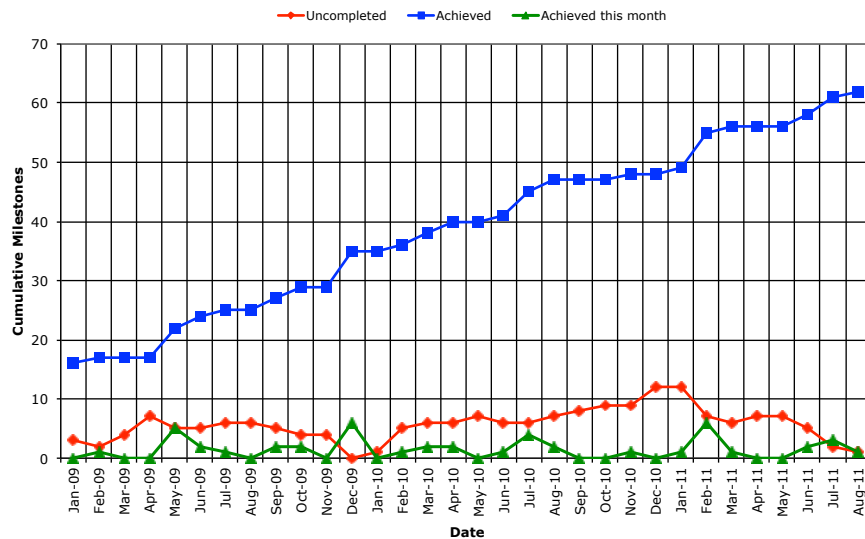
- Revised shutdown schedule being implemented in OpenPlan
 - Working with backup copy of OP schedule
 - Obsoleting ~80 tasks
 - Implementing ~100 tasks
 - Broken down into manageable reporting scale
 - Most 1-2 weeks of effort
 - Distinct tunnel areas for work
 - Flow by crew availability as well as jobs
- Significant cumulative radiation exposure
 - Estimate 10-15 R summed over 50 workers
 - Working with Rad Safety on ALARA for both MI and NuMI areas
 - Do not have ‘hard’ numbers in lab agreements but want to communicate that there will be an increase next year



Milestones

- Accomplished (Jun-Jul-Aug): 6 (0 scheduled) Missed: 5

ANU Milestones



Activity ID	Activity Desc.	Early or Actual Date	Baseline Date	MS Level
2.0 -- ANU Construction				
2.0.4.4.2.13	Off-Project:: IluMI Modified Horn 1 Ready for Installation	01Sep11	14May10	L.5
2.0.3.2.4.7	IluMI IHEP ME Target Accord Signed	01Sep11	01Jul10	L.5
2.0.1.1.5.4	RR ADCW Magnet Refurbish Complete	02Sep11	13Jul10	L.5
2.0.4.4.2.8	Off-Project: IluMI Horn 1 Modules Installed in Chase Complete	31Oct11	15Jul10	L.5
2.0.1.3.4.3	RR DCCT Ready for Installation	03Jan12	05Jan11	L.5

Accomplished: 63

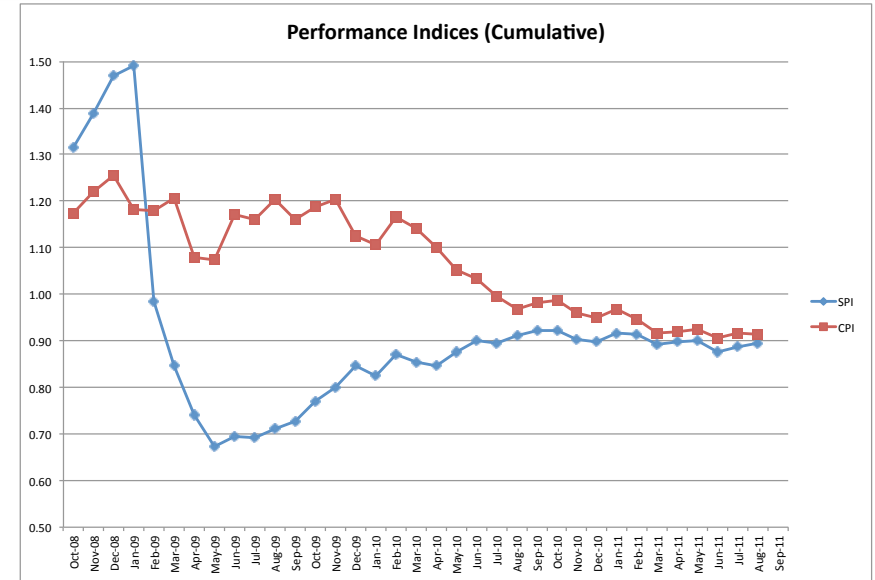
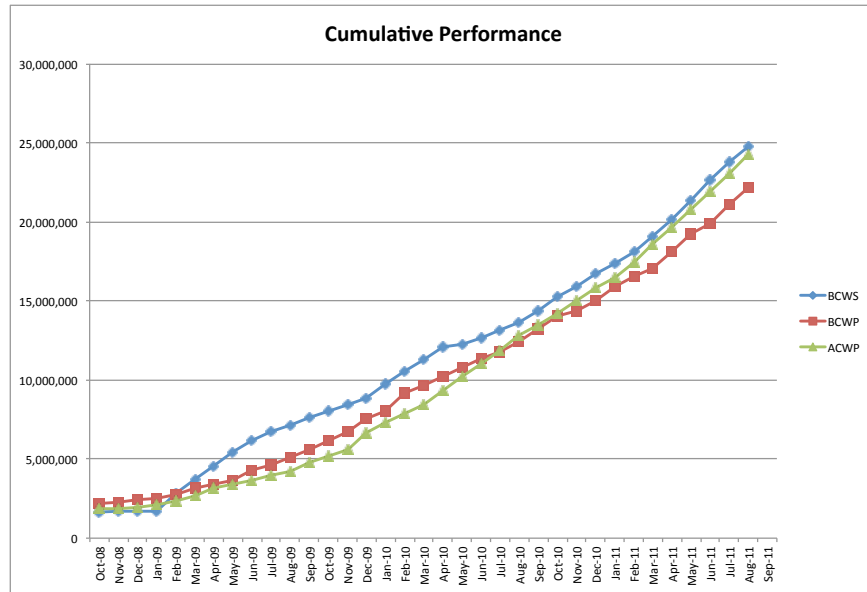
Scheduled: 64

Achieved 4 early (due in September)

Missed milestones still have float



EVMS Performance



- SPI
 - 1.10 for the month (\$0.954M scheduled, \$1.053M performed)
 - ~\$1.1M/month going forward
 - RF Cavities: waiting on peg points
- CPI 0.88 for the month
 - Recycler Labor: effort in cavities not reflected in progress (peg points)



Summary

- Progress being made
 - Welding and leak checking on RF cavity
 - Girder assembly begun in MI-60
- Scheduled ready for Changeover shutdown:
 - 6 Feb 2012: RAW Design tasks for Transfer Hall/Absorber Hall
 - On target for Design Review in October 2011
 - 17 days of float to 1 Mar 2012
- Scheduled Ready for 700 kW commissioning (includes target changeover)
 - 8 Jan 2013:
 - 16 days of float to 1 Feb 2013
 - Tunnel schedule increased to 10 months
 - Counting additional work not associated with ANU tasks
 - End driven by hardware readiness, not people at this time